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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,808	05/16/2006	Jean-Marie Bernard	RN03179	5954

7590 05/24/2007
Jean-Louis Seugnet
Rhodia Inc.
8 Cedar Brook Drive
Cranbury, NJ 08512-7500

EXAMINER

NILAND, PATRICK DENNIS

ART UNIT	PAPER NUMBER
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1714

MAIL DATE	DELIVERY MODE
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05/24/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/579,808

Applicant(s)

BERNARD ET AL.

Examiner

Patrick D. Niland

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-37 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 20-37 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

1. Claims 20-37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. The instant claims require “a polyisocyanate composition comprising” in the preamble but in the description following the preamble do not absolutely require any “polyisocyanates” by the language “at least one functional group selected from the group consisting of isocyanate functional groups and those which derive therefrom” which encompasses 0-1 isocyanate groups which are not “polyisocyanates”. Therefore, it is unclear if “polyisocyanate” of the preamble is requiring the presence of true “polyisocyanates” or if the language following the preamble is limiting and true “polyisocyanates” are not required to be present in the polyisocyanate compositions. This makes the scope of the instant claims unclear.

B. It is unclear what the difference is between “aminoalkylsilane” and “silanoalkylamine” of the instant claims 35-37.

C. It is unclear what the percentages of the instant claims 21, 22, 27-31, 33, 34, and 36 are based on weight, volume, moles, equivalents, or some other basis.

D. It is unclear if the amounts of claim 22, 27, 28, 29, 30, 31, 33, 34, and 36 are based on the amount of the entire composition or some fraction of it.

E. It is unclear what R1 is in claim 25 because it is not defined therein.

F. It is unclear what is intended by “isocyanatoalkylsilane corresponding to the aminoalkylsilane”, particularly “corresponding to the aminoalkylsilane”.

G. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the

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resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claims 22, 23, 25, 27, 28, 29, 30, 31, 33, 34, 36, and 37 recite the broad recitations of the ranges recited within these claims, and the claims also recite narrower ranges/values of these limitations denoted by language such as "optionally".

H. It is unclear if the instantly claimed "diamino" is intended to reference a structure having two amino nitrogens as "diamino" is conventionally used, or a structure having two Hs on an N, i.e. a primary amino group or to have some other meaning because it is not seen as being defined in the instant specification. The former is not seen described in the instant specification though the latter is described, which raises the instant question.

I. The preamble of claim 35 references biuret functional groups. The recited method does not require any biuret functional groups in the recited reactants nor their formation. It is therefore unclear whether the claimed method requires the preamble limitation regarding biuret groups or is intended to have the full scope of the method claimed after the preamble, which does not require biuret groups.

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2. Claims 20-23 and 25-34 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the disclosed compounds which derive from isocyanate groups, does not reasonably provide enablement for all of the encompassed functional groups which derive from isocyanate groups. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

A. The instant claim language “and those which derive therefrom” of claim 20 encompasses an infinite number of derivations. For example, water and NCO react to give amine functional groups. It is not seen that this reaction is intended from the instant specification. Furthermore, the instant specification gives no guidance on all of the potential derivations encompassed by the instant claim language nor which of these will function in the instantly claimed invention. It would require an infinite amount of experimentation to determine how to make all of these derivatives and then another infinite amount of experimentation to determine which derivatives will function according to the instantly claimed invention, particularly considering the unpredictable nature of the chemical arts.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 20-37 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 62-250021 A Yamakado.

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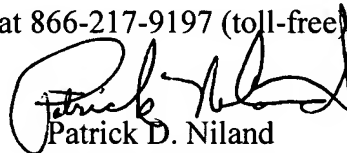
Yamakado discloses reaction products of polybiurets of HDI with the instantly claimed amounts of aminoalkylalkoxysilanes which fall within the scope of the instant claims. See the formulae on pages 142 of the Japanese document and the description in the English abstract. Polymer reactions cannot give only the idealized formulae of page 142 of the Japanese document. A mixture of molecules will form as is understood from the definitions of the polymer concepts such as average molecular weight, average functionality, and the physical factors that govern polymerizations including the statistics of such reactions. Thus the reaction mixture of the reference is expected to necessarily and inherently possess molecules meeting the limitations of the instant claim 20 since such molecules having more than one silane functionality must necessarily form to some degree. It is the examiner's position that the biuret group may fall within the scope of the instantly claimed "diamino" group in the sense that the well known "amino" resins contain such "urea" groups but no NH groups. The above discussed composition reads on the limitations of the instant claims. The reference is silent regarding viscosity but is expected to have the viscosity of the instantly claimed broad range of claim 32 since it is otherwise the same composition as claimed in claim 32 and the applicant attributes their viscosity to the general molecular structure of the references HDI biuret/aminosilane adduct.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick D. Niland whose telephone number is 571-272-1121. The examiner can normally be reached on Monday to Thursday from 10 to 5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Patrick D. Niland', is written over the printed name.

Patrick D. Niland
Primary Examiner
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